



# Managing interest rate volatility in the life insurance sector

July 2024

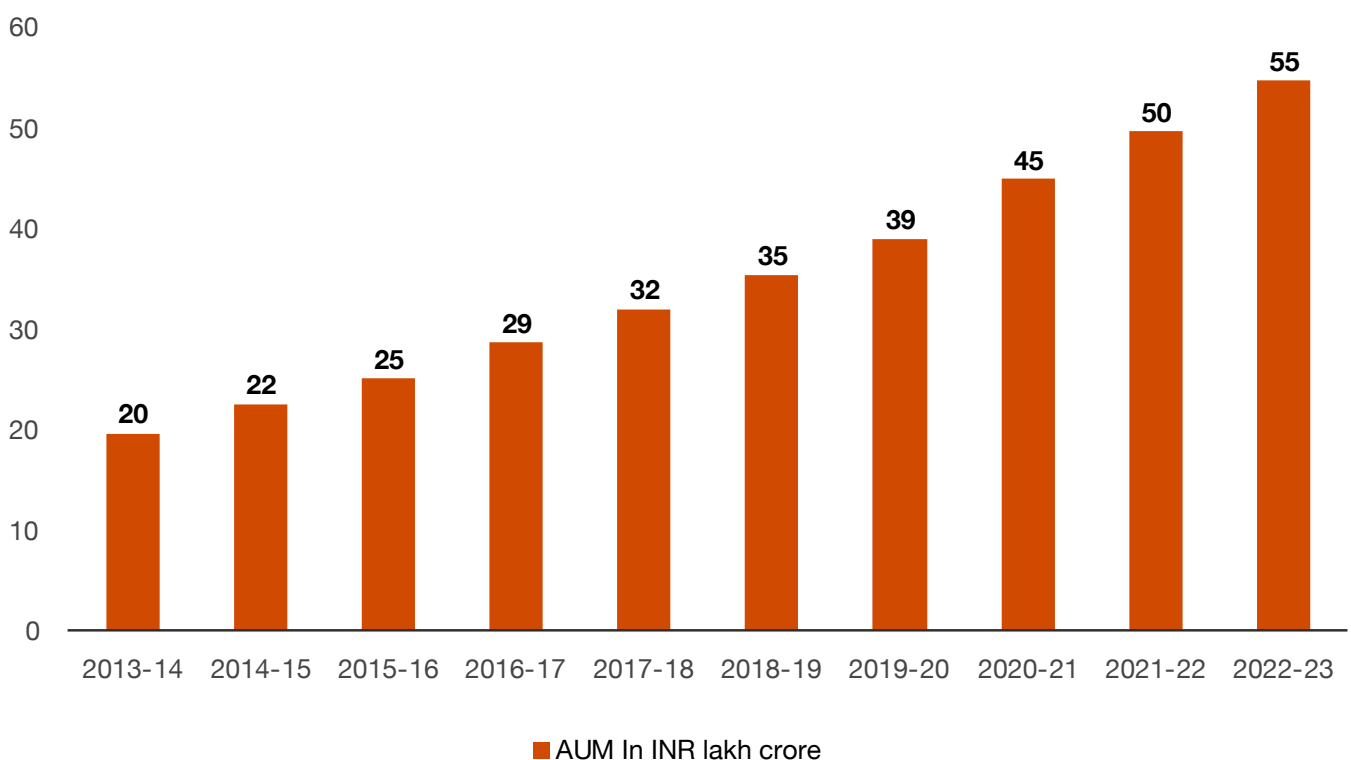


# Background

The insurance industry in India is experiencing rapid growth, driven by factors such as rising awareness about the importance of insurance, increasing disposable incomes, fast-paced digitisation efforts and the government's focus on widening financial inclusion through far-reaching insurance schemes.

The assets under management (AUM) for life insurance companies in India has increased 2.8 times in the last ten years. The sector has witnessed 1.4x growth in the last three years. The Indian insurance industry is expected to continue its upward trajectory, with a projected market size of USD 280 billion by 2025 and a compound annual growth rate (CAGR) of 12–15%.<sup>1</sup>

## Growth of AUM for insurance companies in 2013–2023



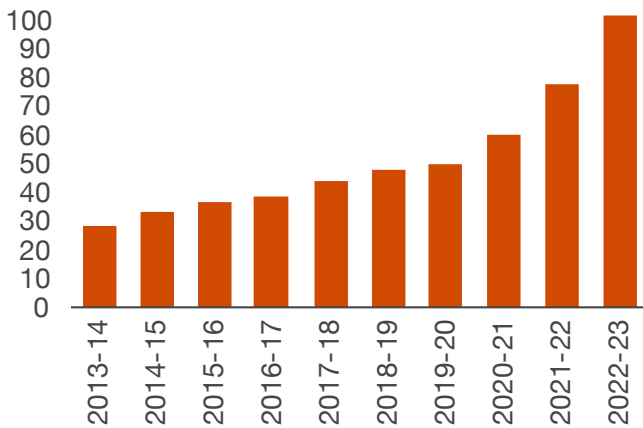
Source: IRDAI (<https://irdai.gov.in/handbook-of-indian-insurance>)

The evolving insurance business models, products, and processes present significant growth opportunities for both domestic and international industry players.

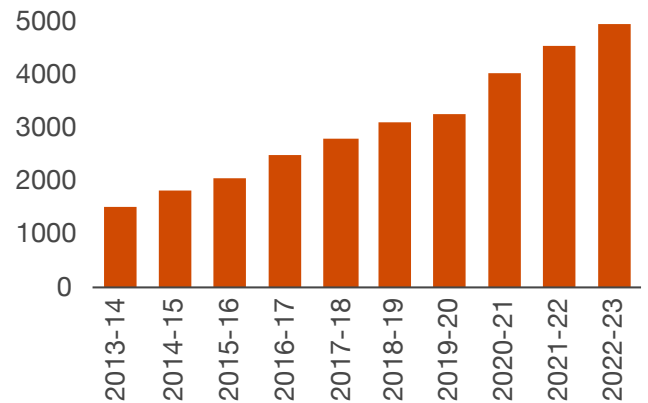
1. International Trade Administration (<https://www.trade.gov/market-intelligence/india-insurance-sector>)

# Investment trends and regulatory landscape

## Shareholders' investment (in INR thousand crore)



## Policyholders' investment (in INR thousand crore)



Source: IRDAI (<https://irdai.gov.in/handbook-of-indian-insurance>)

The investment trends of insurance companies in India indicate significant growth and strategic shifts within the industry:

1. The average growth rate of application of funds (investments) stands at 16.68% YoY (2019–23).
2. During 2019 to 2023, shareholders' investments witnessed a CAGR of approximately 21.18%.<sup>2</sup>
3. Policyholders' investments from 2019 to 2023 saw a CAGR of approximately 12.18%.<sup>3</sup>
4. The Insurance Regulatory and Development Authority (IRDAI) regulations outline the composition of the investment portfolio and rules for investing in various asset classes.
5. The 2016 guidelines allowed insurers to use interest rate derivatives to manage risk from market interest rate changes in their future fixed income investments. It also allowed insurers to invest in Additional Tier 1 (AT1) rupee bonds with local ratings of AA and above, opening a new source of demand.
6. As a result, the notional value of forward rate agreements (FRAs) and government securities futures surged by a whopping 264% from FY 2020–21 to FY 2022–23. Short-term investments in bond and debt instruments are also growing at 36%.<sup>4</sup>

2. IRDAI (<https://irdai.gov.in/handbook-of-indian-insurance>)

3. Ibid.

4. Based on PwC's analysis of three leading insurance companies



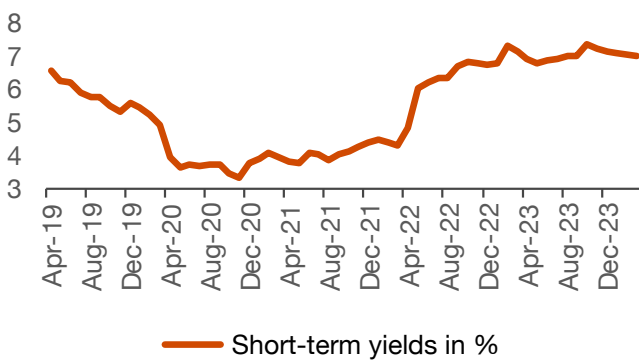


# Movement of short-term G-Sec and long-term G-Sec yields

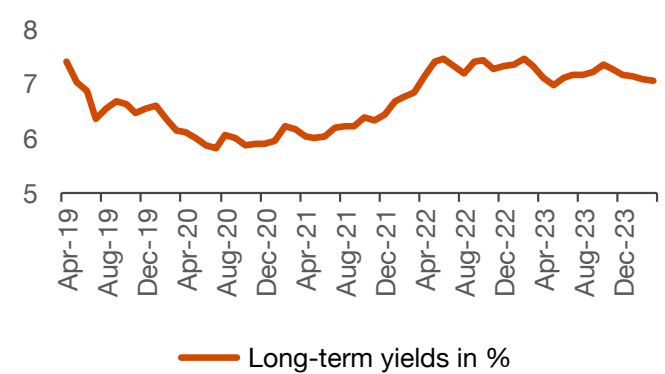


In the last five years, short-term G-Sec yields<sup>5</sup> have shown signs of increased volatility as compared to long-term G-Sec yields.<sup>6</sup>

## Short-term yields



## Long-term yields



Source: Financial Benchmarks India Pvt Ltd

The fluctuation of G-Sec yields will influence the fair value of investments held. This increased volatility in the market with consistent growth has exposed insurers to an increased interest rate risk and asset liability mismatch.

5. Financial Benchmarks India Private Limited (FBIL)

6. Ibid.

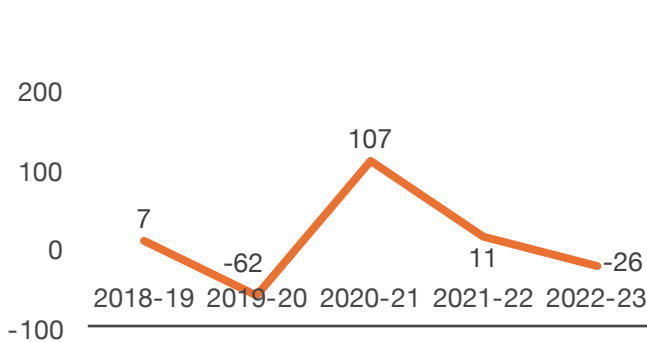


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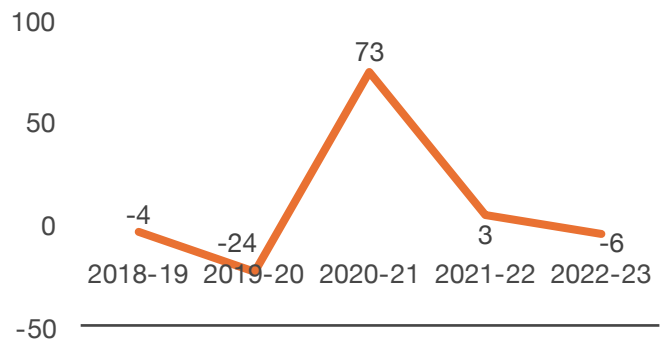
# Impact of volatile interest rates

1. Economic growth following the pandemic and geopolitical tensions in Eastern Europe and the Middle East suggest that inflation is likely to continue rising. Regulators have historically responded to inflationary pressures by increasing interest rates.
2. The decline in G-Sec yields in 2020 and subsequent increase in 2022 have led to fluctuation in the fair value of policyholders' funds. The impact is visible at the industry level as well as on five leading life insurance companies, as shown in the graph below:

**Industry: Revaluation profit/loss**  
(INR thousand crore)



**Top 5 life insurance companies: Revaluation profit/loss**  
(INR thousand crore)



Source: IRDAI (<https://irdai.gov.in/handbook-of-indian-insurance>)

3. Hedging the interest rate risk through permissible derivative products is becoming a common approach amongst life insurers. Rising interest rate uncertainty makes it important for insurers to assess the effectiveness of hedges to ensure economic relationship and reduce the volatility in the investment accounting profit and loss.
4. Managing and mitigating interest rate risk over the period of investment maturity is the primary risk management objective of adopting hedge accounting. With prudent documentation, quantitative and qualitative testing of hedge effectiveness and adherence to hedge accounting standards like International Financial Reporting Standards (IFRS) 9 can be achieved.
5. Disintermediation risk, i.e. the risk that customers may withdraw their funds and investments to seek higher returns elsewhere, has also motivated insurers to reevaluate their lapse assumptions.
6. The persistently volatile and rising interest rates, regulatory impetus and lack of historical precedents have caused many insurers to explore new approaches to better estimate the sensitivity of their portfolio.

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# Risk implications of investment sector growth for insurance

With ongoing growth in the investment sector, economic changes, shifts in market sentiment and relaxation of investment rules by insurance regulators, life insurance companies face the following risks:



## Governance risk

Life insurance companies are constantly requested by the regulator to improve their governance framework, including risk appetite and investment policy.



## Risk reporting system

With constantly changing regulations, life insurance companies need to have robust yet flexible systems for risk reporting.



## Interest rate risk

Insurance companies offer guaranteed products with fixed returns on future premiums, exposing them to interest rate and guarantee risks.



## Issuer risk

Risk of loss arises from the possibility that the counterparty will default or fail to meet obligations in accordance with the agreed terms.



## Asset liability mismatch risk

This risk stems from a shift in financial and non-financial factors due to unmatched asset and liability cash flows.

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# Recent regulatory developments

1. The recent guidelines<sup>7</sup> by the IRDAI explicitly link the governance structure of insurance companies to risk management in investments. It mandates a governance structure with defined roles and responsibilities for the board and senior executives to facilitate risk oversight and ensure alignment with the company's risk appetite.
2. The guidelines also mandate that insurers have a system to clearly monitor the interest rate risk and provide detailed guidance on investment management to ensure transparency and accountability in investment-related activities.
3. The IRDAI's planned 'Risk Based Supervision' framework highlights its focus on promoting stronger risk management practices and resilience of the insurance sector.
4. With respect to exposure to interest rate derivatives, insurers are required to put emphasis on establishing a risk appetite framework, monitoring risk metrics like value at risk (VaR) and ensuring appropriate staffing for key risk control functions.
5. The guidelines<sup>8</sup> on corporate governance for insurers mandate the formation of an investment committee and risk management committee, essentially separate from each other and independently carrying out their responsibilities.
6. An important aspect of these recent guidelines is that the investment committee shall take into consideration both credit rating as well as market movements in its investment decisions. The risk monitoring and management processes for interest rate risk and market risk will become a key input for both the committees.

7. Master Circular on Actuarial, Finance and Investment Functions of Insurers dated 17 May 2024

8. Master Circular on Corporate Governance for Insurers dated 22 May 2024



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# Way forward

Given the regulatory landscape and growth opportunities in the insurance landscape, insurers must focus on the following key areas in order to be resilient in light of the risk implications highlighted above:



## Asset liability management

**Asset liability mismatch:** Insurers may update their asset liability management (ALM) policy and investment/asset allocation strategy to manage risks for various liabilities depending on their nature and tenure of cash flows.

**Interest rate risk:** Managing interest rate risk involves regularly monitoring fluctuations and implementing action plans when rates exceed certain thresholds. This includes adjusting the mix of financial products, employing matching of duration and/or cash flow.



## Risk framework

**Risk appetite framework:** There is a need to review the risk appetite framework's policy procedures to determine the enhanced risk appetite in the growing market.

**Credit risk policy:** Insurers may review their credit risk policy to increase investments in securities with the highest credit rating (i.e. lowest risks) in line with the IRDAI guidelines as well as internal norms and incorporating changes in credit ratings.



## Regulatory

**Governance framework:** Insurance companies need to prioritise the governance framework and regulatory reporting to ensure profitability while maintaining transparency, consumer safety and financial stability.

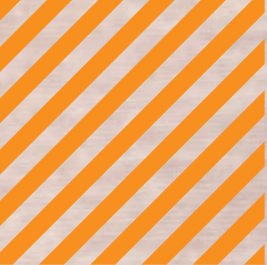
**Regulatory reporting:** Insurance companies can mitigate and manage risks, maintain consumer trust, and operate ethically within the industry by focusing on the regulatory requirements.



## Treasury and hedge accounting

**Treasury products:** By focusing on interest rate derivatives – hedging strategies and hedge effectiveness, insurance companies can leverage treasury management systems and services to streamline their cashflows, reduce risk exposure and increase profitability.

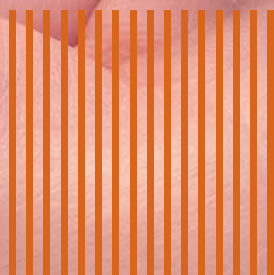
**Hedge accounting:** Adoption of hedge effectiveness and accounting standards can be streamlined with the preparation of documentation and frequent assessment of economic relationship. Qualitative and quantitative check of the hedge relationship can be run to assess whether it is effective both retrospectively and prospectively.



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## In conclusion

Life insurance companies face a range of risks given the evolving business models, products, and processes that require robust risk management and ALM practices. The booming growth in AUM in the past ten years, regulatory relaxations around investments by insurers and investment trends, and the volatility of G-Sec yields have exposed insurers to heightened financial risks. This underlines the criticality of a robust risk management and ALM framework for life insurers in order to strengthen their risk management capabilities while optimising profitability.





For details, please reach out to:



**Kuntal Sur**

Partner, Risk Consulting – Financial Services and Treasury Leader

Ph: +91-9167778833

Email: [kuntal.sur@pwc.com](mailto:kuntal.sur@pwc.com)



**Kapil Todi**

Executive Director, Risk Consulting – Financial Services and Treasury

Ph: +91-9820600369

Email: [kapil.todi@pwc.com](mailto:kapil.todi@pwc.com)



**Tarun Saraf**

Associate Director, Risk Consulting – Financial Services and Treasury

Ph: +91-9680620722

Email: [tarun.saraf@pwc.com](mailto:tarun.saraf@pwc.com)



**Ritesh Gurbani**

Manager, Risk Consulting – Financial Services and Treasury

Ph: +91-9167616504

Email: [ritesh.gurbani@pwc.com](mailto:ritesh.gurbani@pwc.com)



**Yash Mishra**

Associate, Risk Consulting – Financial Services and Treasury

Ph: +91-7898426135

Email: [yash.mishra@pwc.com](mailto:yash.mishra@pwc.com)



**Rohini Gaikwad**

Associate, Risk Consulting – Financial Services and Treasury

Ph: +91-9307572752

Email: [rohini.gaikwad@pwc.com](mailto:rohini.gaikwad@pwc.com)



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